Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANZ-JOSEF GOERTZ and DIETMAR SCHMITT

Appeal No. 1999-1926
Application No. 08/675,938

ON BRIEF

Before HAIRSTON, KRASS, and LALL, Administrative Patent Judges.
LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1, 4, 7-11, 20, 21, 23-27, 30-38 and 42, the only pending claims in this application.

The disclosed invention is directed to a waveguide-resonator device which has a waveguide, a dielectric insert inside a waveguide, several clamping bodies for fixing the dielectric insert inside the waveguide, the clamping bodies being arranged between the waveguide and an outer periphery of the dielectric insert and contact with the dielectric inset only tangentially,

at least one supporting element for the dielectric insert for fixing it in a direction deviating from the fixing direction of the dielectric insert by the clamping body. See Figure 1 of the disclosure. A further understanding of the invention can be achieved by the following claim.

1. A waveguide-resonator device, comprising a waveguide; a dielectric insert arranged inside said waveguide and formed as a disc-shaped cylinder; a plurality of clamping bodies for fixing said dielectric insert inside said waveguide in a fixing direction, said clamping bodies being arranged between said waveguide and an outer periphery of said dielectric insert and contacting said dielectric insert only tangentially; and a supporting element for fixing said dielectric insert in a direction which deviates from said fixing direction of said dielectric insert by said clamping bodies, at least one of said clamping bodies being mounted on said waveguide so that a changeable clamping pressure relative to said dielectric insert is adjustable, said clamping bodies being formed as bars which project toward an outer circumference of said cylinder and contact said insert only tangentially.

The Examiner relies on the following references:

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| Mizumura et al. (Mizumura) | 4,609,883 | Sep. 2, 1986 |
| Hendrick et al. (Hendrick) | 5,034,711 | July 23, 1991 |
| Shen | 5,324,713 | June 28, 1994 |
| Dorothy et al. (Dorothy) | 5,457,087 | Oct. 10, 1995 (filed Dec. 3, 1993) |

Claims 9-11, 23, 26, 30, 31, 34, 37 and 38 stand rejected under 35 U.S.C. § 102 as being anticipated by Shen.

Claims 1, 4, 7, 8, 20, 21, 24, 33, 35 and 36 stand rejected under 35 U.S.C. § 103 as being unpatentable over Shen in view of Hendrick.

Claims 27 and 32 stand rejected under 35 U.S.C. § 103 as being unpatentable over Shen in view of Dorothy.

Claim 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Shen in view of Hendrick and Dorothy.

Claim 42 stands rejected under 35 U.S.C. § 103 as being unpatentable over Mizumura.

Rather than repeat the arguments of Appellants and the Examiner, we make reference to the brief and the answer for their respective details thereof.

## OPINION

We have considered the rejections advanced by the Examiner and the supporting arguments. We have, likewise, reviewed the Appellants' arguments set forth in the brief.

We affirm.

At the outset, we note that Appellants state (brief at page 11) that independent claims 1, 9, 37, 38 and 42 are separately patentable. Of these elected claims, claims 9, 37 and 38 are rejected under 35 U.S.C. § 102 and claims 1 and 42 are rejected under 35 U.S.C. § 103.

REJECTIONS UNDER 35 U.S.C. § 102

A prior art reference anticipates the subject of a claim when the reference discloses every feature of the claimed invention, either explicitly or inherently, See Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

Appellants discuss claims 9, 37 and 38 as a single group at page 12 of the brief. We take broad claim 38 as the exemplary claim for this group. The Examiner gives a detailed explanation the of anticipation rejection at pages 4 and 5 of the Examiner's answer by Shen. The Examiner relies specifically on Figure 7A and 7B of Shen. Appellant argues (brief at page 12) that "[t]his reference [Shen] discloses a device with means for adjusting a clamping pressure only in an axial direction of the cylinder using plates and springs. There are no means for adjusting clamping pressure in a transverse direction with bars projecting towards the outer circumference of this cylinder." However, we, like the Examiner, find that Shen in Figure 7A and 7B shows the claimed structure elements recited in claim 38, for example, see dielectric insert at 30, supporting element at 20, a holder at 70 which holds the supporting element 20 and which is mounted on an

inner surface of the waveguide 27. Note the clamping means at 35 which are capable of applying the clamping pressure on the dielectric insert 30 for its flat rigid fixing relative to the supporting element. Therefore, we sustain the anticipation rejection of claims 9, 37 and 38 by Shen.

REJECTIONS UNDER 35 U.S.C. § 103

While there must be some teaching, reason, suggestion, or motivation to combine existing elements to produce the claimed device, it is not necessary that the cited references or prior art specifically suggest making the combination (see B.F. Goodrich Co. v. Aircraft Braking Systems Corp., 72 F.3d 1577, 1583, 37 USPQ2d 1314, 1319 (Fed. Cir. 1996) and In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988)) as the appellant would apparently have us believe. Rather, the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). Moreover, in evaluating such references it is proper to take into account not only the specific teachings of the references but also the inferences which one skilled in the

art would reasonably be expected to draw therefrom. In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

Two different pieces of evidence are used to reject the other two independent claims, 1 and 42.

Shen and Hendrick

The Examiner rejects claim 1 under this combination at pages 5 and 6 of the Examiner's answer. The Examiner asserts that Shen discloses all the limitations of claim 1 except for the clamping bodies in Shen do not have a changeable clamping pressure on the dielectric insert. However, the Examiner asserts that Hendrick in Figure 2 discloses clamping bodies 11 for dielectric insert 12 in waveguide 10, with the clamping pressure of the clamping bodies 11 being adjustable with screw threads 11A as shown in Figure 3. The Examiner uses this teaching of Hendrick in modifying the assembly shown by Shen in Figures 7A and 7B. Appellants argue (brief at page 13) that "Hendrick does not use clamping bodies for adjusting the clamping pressure onto the dielectric insert. Instead, he uses a special guiding holes to fix the dielectric insert in a defined position. The present invention does not use holes in the dielectric insert." The Examiner responds (answer at page 9) that "[t]hat argument is unpersuasive because the Examiner has used the Hendrick

reference, ... to provide an exemplary teaching of the obviousness of clamping bodies having an adjustable clamping pressure in a transverse direction. Therefore, the Shen/Hendrick combination has no 'holes in the dielectric insert.'" We agree with the Examiner's position. While modifying the Shen reference an artisan is not supposed to bodily incorporate the structure of the secondary reference into the main reference, rather an artisan would use the teaching of adjustable pressure in modifying the clamping pressure applied by 35 on the insert 30 in Shen. Hendrick provides the motivation for a variable pressure on the insert to account for changes caused by temperature, see col. 1, lines 25-34. Therefore, we sustain the obviousness rejection of claim 1 over Shen and Hendrick.

Mizumura

The Examiner gives a lucid explanation of the rejection of claim 42 over Mizumura at page 8 of the Examiner's answer. Appellants argue (brief at page 13) that "[c]laim 42 ... defines that the waveguide has a projection formed in direction of its diameter, so that the plate abuts against the projection. This feature is not disclosed in the reference ...." We disagree with Appellants. Clearly, the waveguide 42 has a projection 42A which extends along the diameter of the waveguide, and that projection

abuts against plate 14 which is supporting the dielectric insert 18 (see Figure 4 of Mizumura). Furthermore, to use glue to attach the insert to the plate would have been obvious. Therefore, we sustain the obviousness rejection of claim 42 over Mizumura.

In conclusion, since Appellants have not presented any arguments relating to any other claims individually and we have sustained the rejection of the independent claims taking into consideration the arguments presented by the Appellants respectively, we sustain the anticipation rejection of claims 9-11, 23, 26, 30, 31, 34, 37 and 38 by Shen; the obviousness rejection of claims 1, 4, 7, 8, 20, 21, 24, 33, 35, and 36 over Shen and Hendrick; claims 27 and 32 over Shen and Dorothy; claim 25 over Shen, Hendrick and Dorothy; and claim 42 over Mizumura.

The decision of the Examiner rejecting claims 1, 4, 7-11, 20, 21, 23-27, 30-38 and 42 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

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| KENNETH W. HAIRSTON<br>Administrative Patent Judge | ) | |
| ERROL A. KRASS<br>Administrative Patent Judge | ) | BOARD OF PATENT APPEALS AND INTERFERENCES |
| PARSHOTAM S. LALL<br>Administrative Patent Judge | ) | |

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